

**FACT SHEET FOR STATE WASTE DISCHARGE PERMIT ST-7291**

**FACILITY NAME: Goodrich Aviation Technical Services, Inc.**

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## **INTRODUCTION**

This fact sheet is a companion document to the draft State Waste Discharge Permit No. ST-7291. The Department of Ecology (the Department) is proposing to issue this permit, which will allow discharge of wastewater to Olympus Terrace Sewer District POTW. This fact sheet explains the nature of the proposed discharge, the Department's decisions on limiting the pollutants in the wastewater, and the regulatory and technical bases for those decisions.

Washington State law (RCW 90.48.080 and 90.48.160) requires that a permit be issued before discharge of wastewater to waters of the state is allowed. This statute includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. Regulations adopted by the state include procedures for issuing permits and establish requirements which are to be included in the permit (Chapter 173-216 WAC).

This fact sheet and draft permit are available for review by interested persons as described in Appendix A—Public Involvement Information.

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in these reviews have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response.

<b>GENERAL INFORMATION</b>	
Applicant	Goodrich Aviation Technical Services, Inc.
Facility Name and Address	Goodrich Aviation Technical Services, Inc. 3100 - 112 <sup>th</sup> Street SW Everett, WA 98204 Snohomish County
Type of Facility	Aircraft Maintenance (SIC3721), Metal Finishing (Chromate Conversion Coating) - Categorical Industrial User
Facility Discharge Location	Latitude: 47° 53' 12" N      Longitude: 122° 15' 42" W
Treatment Plant Receiving Discharge	Olympus Terrace Sewer District
Contact at Facility	Name: Roy Chandler Director, EH&S and Facilities Administration Telephone #: (425) 423-3388 Name: Bobette Plendl Regulatory Compliance Specialist Telephone #: (425) 423-3368
Responsible Official	Name: Gary Vilella, Vice President - People 3100 - 112 <sup>th</sup> Street SW Everett, WA 98204 Telephone #: (425) 423-3388 FAX #: (425) 423-3388

## **BACKGROUND INFORMATION**

### *DESCRIPTION OF THE FACILITY*

The Goodrich Aviation Technical Services (ATS) facility, located at Paine Field in Everett, Washington, is an aerospace repair and maintenance facility that refurbishes commercial aircraft. The primary Standard Industrial Classification Code is 3721 (Aircraft Parts and Equipment). The facility currently consists of three aircraft hangars and other buildings, including chemical storage buildings, an equipment repair shop, and a weld/fabrication shop.

Activities conducted at the ATS facility include mechanical dismantling and assembly, equipment repair and testing, surface preparation, cleaning, and surface coating. Work done on each aircraft varies according to the work order from each customer. Most work falls into the following categories: mechanical assembly, maintenance and repair, cleaning, and surface coating operations. Cleaning is performed with alkaline surfactant material. Depainting is conducted with formalin-based stripping agents. Surface preparation includes alodining (chromate conversion coating).

The proposed permit covers the following discharges:

- Landing Gear Wash Water
- Aircraft Repair Wash Water
- Preparation of Aircraft for Painting
  - Stripper Wash Water (1400 gallons per day)
  - Detergent Wash Water (1500 gallons per day)
  - Alodine Wash Water (800 gallons per day)
- Parts Cleaning Wash Water
- Parts Alodining Wash Water

Landing gear wash water mainly results at the time of inspection operations undertaken shortly after arrival of an aircraft. Landing gear washing for a single aircraft results in a maximum discharge of 1000 gallons per aircraft. It would be unusual for more than one aircraft to be subject to landing gear operations on a single day. Therefore, the maximum discharge from this operation is expected to be approximately 1000 gallons per day. The landing gear wastewater includes detergent as well as grease and associated particulate and organic materials.

Aircraft washing, stripping (aka depainting), chromate conversion coating (aka alodining) operations are conducted in Hangar III. Stripping operations are expected to result in a maximum discharge of 1400 gallons per day of stripping rinse water. Aircraft washing is expected to result in a maximum discharge of approximately 1500 gallons per day of wash water. Aircraft alodining is expected to result in a maximum discharge of approximately 800 gallons per day.

Other aircraft and engine cleaning operations are performed on the “ramp” outside Hangar III. This wash water is directed to the trench system on the interior of Hangar III.

Additional aircraft cleaning operations occur on the wash rack area located outside Hangar I. The resulting wastewater is trucked to the pretreatment system at Hangar III for treatment in the pretreatment system. Nevertheless, sample point 009, which is a direct discharge point for this wash rack, is maintained as a discharge point in this permit for operational flexibility purposes.

Aircraft stripping wash water originates in the interior of Hangar III, where this wastewater is collected in a trench. This wash water contains formic acid-based stripper as well as paint flakes. This wastewater is stored in the stripping wastewater tank prior to being run through the metals removal pretreatment system located in Hangar III.

Aircraft alodine (chromate conversion coating) wastewater is generated in Hangar III. This wastewater includes significant concentrations of chromium and other metals as well as ferrocyanide ions. This wastewater is stored in the alodine wastewater tank prior to being processed in the pretreatment system in Hangar III.

Parts wash water results from the washing of parts in various alkaline cleaners in various areas of the Goodrich complex.

Parts alodine wastewater results from the chromium conversion coating of parts in various component service areas of the Goodrich complex. The process water and the resulting rinse water are directed to the alodine rinse water storage tank located in Hangar III.

### **Treatment Processes**

The pretreatment system is located in Hangar III. There are three holding tanks located in the pretreatment plant. They are dedicated to aircraft wash/rinse water, stripping rinse water, and alodine rinse water respectively.

At this time, the aircraft wash water is treated by means of oil/water separation, coagulation, flocculation, pH adjustment, and multimedia filtration.

Paint stripping water is treated with coagulation, flocculation, pH adjustment, and multimedia filtration.

Alodine rinse water is first subjected to reduction of hexavalent chromium to its trivalent form. Following chromium reduction, the wastewater is treated by means of flocculation and settling of heavy metals, and multimedia filtration. Most or all of the cyanide present in the alodine wastewater is present as ferrocyanide ion ( $\text{Fe}(\text{CN})_6^{-4}$ ) as opposed to the cyanide ion ( $\text{CN}^-$ ) per se. Therefore, the flocculation/settling process is responsible for removal of the compounds subject to the cyanide limitation. Alkaline chlorination was determined to be ineffective for destruction of ferrocyanide ions and is no longer employed.

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At the time the existing permit was issued in 1997, wastewater from a nearby Goodrich plant, the Component Services Division, was being trucked to Hangar III for treatment. Goodrich was in the process of installing a pretreatment system at Component Services Division at the time the permit was issued. Following completion of the pretreatment system, Goodrich applied for and subsequently obtained a permit for discharge from the Component Services Division plant. At the time of the application for this permit, Goodrich had begun to haul the wastewater from Component Services Division to Hangar III for pretreatment. As this was the practice at the time the existing permit was issued, it was not necessary to modify the existing permit before canceling the permit for Component Services Division. The State Waste Discharge Permit for Component Services Division was cancelled in June 2002.

*PROTECTION OF OLYMPUS TERRACE SEWER DISTRICT POTW*

At the time Olympus Terrace Sewer District approved Goodrich's application, the District submitted a letter attached to the application which stated that their approval of the proposed discharge was provisional in nature. The District noted that they were in the process of retaining a consultant to review their existing resolution and its associated discharge limitations and conditions. The District estimated that the consultant would submit recommended changes in the resolution in approximately December 2002. The District requested that the Department reflect the nature of the District's conditional approval within the text of the proposed permit and fact sheet and to provide a condition enabling reopening of the permit to include conditions recommended by the District. Changes in the Olympus Terrace Sewer District resolution are cited in the reopener clause of this permit as a cause for reopening of the permit for possible modification.

In preparation for the application, Goodrich had a consultant [Camp Dresser & McKee, Inc. (CDM)] conduct a treatability study. The focus of the study was an evaluation of physical and chemical changes which might be made to the treatment processes in order to meet possible local limitations, as well as new proposed federal standards for the Metal Products and Machinery (MP&M) Effluent Guidelines under the Clean Water Act. In addition, the Olympus Terrace Sewer District (OTSD) is in the process of proposing to institute a surcharge for facilities with high strength or industrial discharges. OTSD is concerned in particular with the foaming it has observed in its treated effluent. Excessive foaming activity has also been noted in the plant influent as well as the aeration basin (oxidation ditch) and effluent at the POTW. OTSD is also concerned about unusual color and transmissivity characteristics which could have the potential to adversely impact the effectiveness of its ultraviolet disinfection system.

*SAMPLING FOR CYANIDE AT COMMINGLED WASTESTREAM SAMPLE POINT*

Goodrich's consultant Camp Dresser and McKee (CDM) has concluded that, with minimal changes, Goodrich can expect to achieve compliance with both the current categorical metal finishing standards and proposed federal Metal Products and Machinery (MP&M) categorical pretreatment standards. The CDM report contained the recommendation that Goodrich commingle the wastewater resulting from their various processes. The existing federal regulations (40 CFR Part 433) require testing for cyanide at a point in the waste stream which carries only wastewater from those processes which are expected to generate cyanide-bearing wastewater. The rationale for commingling of wastewaters is two-fold. First, the commingling of wastewaters would result in increased metal ion concentrations to aid in the settling of cyanide (concisely ferrocyanide ions). In addition, CDM has concluded that mixing the waste streams will greatly result in a reduction of foaming in the effluent.

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Goodrich requested in its letter submitted with the application, that sample point 008 (the sample point for alodine rinse water) be eliminated in the permit, and the cyanide compliance point (Sample Point 008 in the existing permit) be at a point following treatment of all metal finishing-related wastewater (as opposed to the cyanide-bearing waste stream-only). Federal regulations authorize sampling of the commingled waste stream, but require that the combined waste stream formula be employed to calculate the cyanide limitation. In subsequent discussions, Goodrich requested that Sample Point 008 be retained, but only as a backup sample point to be used under certain circumstances, such as those under which a large amount of cyanide-bearing-only wastewater were to be generated.

*PERMIT STATUS*

The previous permit for this facility was issued on October 15, 1997. The permit was modified on December 2, 1998, in order to authorize a new sampling point for cyanide. The permit issued in 1997 contained a limitation for cyanide-amenable-to-chlorination with a sample point at the discharge of the cyanide destruction unit. Subsequently, it was determined on the basis of studies performed by Goodrich, that, given the non-amenable-to-chlorination nature of ferrocyanide, virtually all cyanide removal was being effected by means of precipitation, as opposed to destruction by means of alkaline chlorination. Therefore, the permit modification of December 2, 1998, included a substitution of a total cyanide limitation for a cyanide amenable to chlorination limitation as the control parameter.

An application for permit renewal was submitted to the Department on May 8, 2002, and accepted by the Department on May 16, 2002.

*SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT*

The cyanide studies referred to in the section above were performed by Goodrich as a consequence of a series of cyanide violations. Notices of violation were issued for those violations. However, the Department did not levy monetary penalties against Goodrich, as Goodrich worked intensively to investigate and remedy the cyanide problem, and kept the Department informed of all violations and the progress of their technical investigations. The result of the studies indicated that cyanide removal was occurring in the precipitation step as opposed to destruction by means of alkaline chlorination. The violations ceased when the permit was modified to authorize testing for total cyanide at a point following the precipitation process. In order to prevent dilution as a means of achieving compliance, the new permit contained a provision which required compliance testing for cyanide to be conducted only at those times during which cyanide-bearing-waste streams-only were being treated.

On June 29, 2001, the facility was issued a Notice of Violation for causing interference at the Olympus Terrace Sewer District POTW, due to discharge of wastewater which caused excessive foaming. The incident of April 13, 2001, was based on a report by Olympus Terrace Sewer District that indicated interference with floc formation in the secondary clarifier as well the appearance of foam in the Olympus Terrace Sewer District POTW effluent.

A compliance inspection with sampling was conducted on March 21, 2001. At that time, the WDOE inspector collected a sample which indicated a cadmium concentration of 0.185 mg/L. A Notice of Violation was issued for this violation as well as for a cadmium violation reported on the March 2001 Discharge Monitoring Report.

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The above Notice of Violation also included violation of the oil and grease limitation as indicated in the March 2001 Discharge Monitoring Report.

On June 14, 1994, Tramco was issued a Notice of Violation and a \$1000 penalty for discharge of cadmium copper and zinc in excess of permit discharge limitations during the one and one-half year period prior to the issuance date of the Notice of Penalty.

*WASTEWATER CHARACTERIZATION*

The concentration of pollutants in the discharge was reported in the permit application and in discharge monitoring reports for the period April 2001 through April 2002. The proposed wastewater discharge is characterized for the pollutant parameters indicated in the table below:

<b>EFFLUENT CHARACTERIZATION AND COMPARISON OF EXISTING AND PROPOSED DISCHARGE LIMITATIONS</b>							
	<b>Monitoring Results</b> (Sample Point 007 for non-cyanide parameters, Sample Point 008 for cyanide)			<b>Limitation, Existing Permit</b> (Sample Point 007 for non-cyanide parameters, Sample point 008 for cyanide)		<b>Final Limitation, Proposed Permit</b> (Sample Point 007 for all parameters)	
<b>Pollutant Parameter</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Average</b>	<b>Average Monthly</b>	<b>Maximum Daily</b>	<b>Average Monthly</b>	<b>Maximum Daily</b>
pH, std pH units	6.0	12.0	7.5	6.0	9.0	6.0	9.0
Cadmium, T, mg/L	<0.002	0.13	0.022	0.07	0.11	0.07	0.11
Chromium, T, mg/L	<0.005	0.48	0.139	1.71	2.77	1.71	2.77
Copper, T, mg/L	<0.006	0.39	0.042	2.07	3.38	2.07	3.38
Lead, T, mg/L	<0.001	0.039	0.002	0.43	0.69	0.43	0.69
Nickel, T, mg/L	<0.01	0.11	0.033	2.38	3.98	2.38	2.63
Silver, T, mg/L	<0.003	<0.003	<0.003	0.24	0.43	0.24	0.43
Zinc, T, mg/L	<0.007	1.25	0.23	1.48	2.61	1.48	2.61
TTO, mg/L				N/A	3.13	N/A	3.13
COD, lb/day	N/D	N/D	N/D	N/A	N/A	N/A	200
N/D indicates no data available							
N/A indicates not applicable							

*SEPA COMPLIANCE*

The Goodrich plant is a pre-existing facility with a pre-existing State Waste Discharge Permit. There is no new construction planned in association with the discharge authorized by this permit. Therefore, the requirement to complete a new SEPA checklist is not triggered by the reissuance of this State Waste Discharge Permit.



## **PROPOSED PERMIT LIMITATIONS**

State regulations require that limitations set forth in a waste discharge permit must be based on the technology available to treat the pollutants (technology-based) or be based on the effects of the pollutants to the POTW (local limits). Wastewater must be treated using all known, available, and reasonable treatment (AKART) and not interfere with the operation of the POTW.

The more stringent of the local limits-based or technology-based limits are applied to each of the parameters of concern. Each of these types of limits is described in more detail below.

### *TECHNOLOGY-BASED EFFLUENT LIMITATIONS*

All waste discharge permits issued by the Department must specify conditions requiring available and reasonable methods of prevention, control, and treatment of discharges to waters of the state (WAC 173-216-110). Federal categorical limitations for this facility are found under 40 CFR Part 433. The categorical metal finishing standards are applicable due to the alodine (chromium conversion coating) wastewater generated at this facility as part of the surface preparation process for painting. USEPA has conducted extensive studies based on a criterion of economic reasonableness. The metals and TTO limitations set forth in the proposed permit are based on those studies. As the economic reasonableness criteria used by USEPA are similar to the AKART requirements set forth under state regulations, the categorical limitations developed by USEPA are considered by the state to be equivalent to AKART-based limitations.

The categorical pretreatment regulations of 40 CFR Part 433 contain the requirement that the compliance point for cyanide be the discharge from those wastewater processes which are expected to contain cyanide. Some of Goodrich's alodine processes contain ferrocyanide. Therefore, the normal compliance point would be the discharge of the alodine waste stream.

Goodrich has determined that ferrocyanide removal is accomplished by means of settling as opposed to alkaline chlorination. Accordingly, Goodrich has requested that the effluent from the flocculation-settling tank be used as the compliance point for cyanide for commingled cyanide and non-cyanide-bearing waste streams. USEPA regulations authorize the use of this sample point if the combined waste stream formula is used to derive a limitation

The federal categorical limitations for cyanide are 1.20 mg/L (daily maximum), and (0.65 mg/L monthly average). Based on Goodrich's application, the alodine flow of 800 mg/L constitutes an average of 21.6% of the total flow through the flocculation/precipitation treatment unit. Based on the combined waste stream formula, the cyanide limitation for the mixed flow has been calculated to be 0.26 mg/L daily maximum and 0.14 mg/L monthly average.

In order to maintain operational flexibility, the old cyanide sample point is maintained for use during those times during which Goodrich has accumulated large batches of cyanide for treatment. At these times, the un-modified federal categorical standard for cyanide would be applicable.

*EFFLUENT LIMITATIONS BASED ON LOCAL LIMITS*

The Olympus Terrace Sewer District has periodically experienced pass-through of foamy material into the effluent. In addition, the sewer district has experienced interference as a result of excessive foaming on a fairly regular basis. Sampling and analysis performed by the plant operator has indicated excessive foaming beginning at a threshold CTAS value of 1 mg/L. CTAS (Cobalt thiocyanate active substances) are those which react with an aqueous cobalt thiocyanate solution to give a cobalt containing product which may be measured. Non-ionic surfactants are the most important subset of such substances occurring in wastewater. The analysis results in an assay stated in terms of equivalence to mg/L of a reference non-ionic surfactant.

The Olympus Terrace Sewer District has identified impaired oxygen transfer in the POTW's mixed liquor. District personnel have reported that a diminution in oxygen transfer appears to be correlated with observed foaming. It is reasonable to hypothesize that bubble formation due to surfactants could cause an attenuation of oxygen transfer problem, presumably by reducing the area available for mass transfer, and/or by introducing a film between the air and the mixed liquor present in the aeration basin (oxidation ditch).

At the time of drafting the proposed permit, no reliable data for the background level of CTAS in domestic wastewater was available. Therefore, it proved to be impractical to develop a reliable limitation for CTAS for Goodrich's effluent.

Olympus Terrace Sewer District has requested that, in the event that it is impractical to develop a surfactant limitation, a COD (chemical oxygen demand) limitation be placed in the permit. The proposed COD limitation is intended to provide an indirect way to prevent introduction of extremely high loadings of surfactants to the treatment plant (unless the combined waste stream formula is utilized to develop a limitation for mixed cyanide and non-cyanide-bearing waste streams). The proposed COD limitation will also serve as a means of preventing unusually high loadings of BOD and COD.

The proposed COD limitation is based on the Olympus Terrace Sewer District Administrative Code which prohibits any discharger from discharging more than 2% of the flow capacity of the plant. The Olympus Terrace Sewer District normally receives COD concentrations averaging approximately 500 mg/L. The OTSD POTW is rated at 2.2 million gallons per day. Using these flow and concentration assumptions, the OTSD can be expected to receive 9174 pounds of COD on an average day. Two per cent of 9174 pounds is approximately 184 pounds. Therefore, the proposed permit contains a COD limitation of 200 pounds per day of COD, which results from the rounding-off of 184 pounds per day.

The daily maximum nickel limitation is based on a local-limits calculation the Department performed based on conditions at OTSD. Nickel was the only metals-limitation calculated which was more stringent than the corresponding federal categorical limitation.

*COMPARISON OF LIMITATIONS WITH THE EXISTING PERMIT ISSUED*

A comparison of the limitations in the existing permit with those in the proposed permit are shown in the table in the Wastewater Characterization section of this Fact Sheet.

## MONITORING REQUIREMENTS

Monitoring, recording, and reporting are specified to verify that the treatment process is functioning correctly and that effluent limitations are being achieved (WAC 173-216-110).

The monitoring schedule is detailed in the proposed permit under Condition S1 and S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

Proposed Monitoring Frequencies –Sample Point 007	
Pollutant Parameter	Monitoring Frequency
pH, std pH units	Continuous
Cadmium, T, mg/L	Monthly
Chromium, T, mg/L	Monthly
Copper, T, mg/L	Quarterly
Lead, T, mg/L	Quarterly
Nickel, T, mg/L	Quarterly
Silver, T, mg/L	Quarterly
Zinc, T, mg/L	Monthly
Cyanide, T, mg/L	Monthly
TTO, mg/L	Quarterly
COD, mg/L	Monthly

The monitoring frequency for pH is continuous as requested by the Olympus Terrace Sewer District.

The monitoring frequency for cadmium in the proposed permit is monthly due to the fact that past monitoring has indicated a potential to exceed the limitation for cadmium. Exceedances of the cadmium limitation have occurred in the past.

The monitoring frequency for chromium in the proposed permit is monthly due to the reasonable expectation that a chromium conversion coater may have a potential for exceeding the limitation.

The monitoring frequency for copper in the proposed permit is quarterly due to the fact that past monitoring data indicates that violation of this limitation is unlikely.

The monitoring frequency for lead in the proposed permit is quarterly due to the fact that past monitoring data indicates that violation of this limitation is unlikely.

The monitoring frequency for nickel in the proposed permit is quarterly due to the fact that data indicates that violation of nickel limitation is unlikely.

The monitoring frequency for silver in the proposed permit is quarterly due to the fact that data indicates that violation of the silver limitation is highly unlikely.

The monitoring frequency for zinc in the proposed permit is monthly due to the fact that data indicates some potential for violation of the standard for zinc.

The monitoring frequency for cyanide is monthly in the proposed permit due to the fact that data indicates a potential for violation of the cyanide standard. Violation of the cyanide standard has occurred in the past. Ferrocyanide, which is measured by the USEPA method for cyanide, is a component of one of the types of alodining solution employed by Goodrich.

The monitoring frequency for COD will be monthly beginning with the period during which the final effluent limitation becomes effective, due to the importance of controlling this parameter to control interference at the Olympus Terrace Sewer District wastewater treatment plant.

## **OTHER PERMIT CONDITIONS**

### *REPORTING AND RECORDKEEPING*

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges [WAC 273-216-110 and 40 CFR 403.12 (e),(g), and (h)].

### *OPERATIONS AND MAINTENANCE*

The proposed permit contains Condition S.5 as authorized under Chapter 173-240-150 WAC and Chapter 173-216-110 WAC. It is included to ensure proper operation and regular maintenance of equipment, and to ensure that adequate safeguards are taken so that constructed facilities are used to their optimum potential in terms of pollutant capture and treatment.

### *PROHIBITED DISCHARGES*

Certain pollutants are prohibited from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (Chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (Chapter 173-303 WAC).

### *DILUTION PROHIBITED*

The Permittee is prohibited from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limitations.

### *SOLID WASTE PLAN*

As the Permittee does not store solid waste outside its buildings in types or quantities likely to result in entry of leachate or runoff from such waste into state waters, maintenance, or submittal of a Solid Waste Plan is not required. Nevertheless, the permit contains a provision which requires that the Permittee to handle and dispose of all solid waste in such a manner as to prevent its entry into state ground water, surface water, or a POTW.

*NON-ROUTINE AND UNANTICIPATED DISCHARGES*

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean wastewaters but may be contaminated with pollutants. The permit contains an authorization for non-routine and unanticipated discharges. The permit requires a characterization of these wastewaters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, the Department may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, require the wastewater to be placed through the facilities wastewater treatment process or require the water to be reused.

*SPILL PLAN*

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan as necessary and submit it to the Department.

*SLUG DISCHARGE CONTROL PLAN*

The Department has determined that the Permittee has the potential for a batch discharge or a spill that could adversely effect the POTW, therefore, a Slug Discharge Control Plan is required [40 CFR 403.8 (f)].

The previous permit contained a requirement that the Permittee develop and submit a Slug Discharge Control Plan. The Permittee is required to maintain an adequate Slug Discharge Control Plan and to submit any updates of the plan to the Department. Goodrich submitted a Slug Discharge Control Plan to the Department in July 2001.

*COMPLIANCE SCHEDULE FOR MEETING PRETREATMENT STANDARDS*

The proposed permit contains the requirement that an equalization tank with a minimum volume be installed and started up no later than October 31, 2003. The proposed permit requires that new final limitations for COD and TSS be achieved no later than September 1, 2004.

*REOPENER CLAUSE*

Part G3.F contains specific conditions, additional to those customarily employed, under which the proposed permit may be reopened for modification. The additional conditions include changes in federal or state statutes, or changes in Olympus Terrace Sewer District Administrative Code, or new information regarding causes of interference or disruption of operations at Olympus Terrace Sewer District. These conditions have been included largely in order to provide an opportunity to evaluate the sufficiency of the COD limitations in the proposed permit for preventing interference or disruption of operations at the Olympus Terrace Sewer District. The Department may, based on evaluation of further information, determine that the limitations contained in the proposed permit be made more or less stringent, as new information and circumstances may require.

### **GENERAL CONDITIONS**

General Conditions are based directly on state laws and regulations and have been standardized for all industrial waste discharge to POTW permits issued by the Department.

Condition G1 requires responsible officials or their designated representatives to sign submittals to the Department. Condition G2 requires the Permittee to allow the Department to access the treatment system, production facility, and records related to the permit. Condition G3 specifies conditions for modifying, suspending, or terminating the permit. Condition G4 requires the Permittee to apply to the Department prior to increasing or varying the discharge from the levels stated in the permit application. Condition G5 requires the Permittee to construct, modify, and operate the permitted facility in accordance with approved engineering documents. Condition G6 prohibits the Permittee from using the permit as a basis for violating any laws, statutes, or regulations. Conditions G7 and G8 relate to permit renewal and transfer. Condition G9 requires the Permittee to control production or wastewater discharge in order to maintain compliance with the permit. Condition G10 prohibits the reintroduction of removed pollutants into the effluent stream for discharge. Condition G11 requires the payment of permit fees. Condition G12 describes the penalties for violating permit conditions.

### **PUBLIC NOTIFICATION OF NONCOMPLIANCE**

A list of all industrial users which were in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters may be annually published by the Department in a local newspaper. Accordingly, the Permittee is apprised that noncompliance with this permit may result in publication of the noncompliance.

### **RECOMMENDATION FOR PERMIT ISSUANCE**

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics. The Department proposes that the permit be issued for a period of five (5) years.

## **APPENDICES**

### *APPENDIX A—PUBLIC INVOLVEMENT INFORMATION*

The Department has tentatively determined to reissue a permit to the applicant listed on page one of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public Notice of Application (PNOA) was published on September 4, 2001, and September 11, 2001, in the *Everett Herald* to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department published a Public Notice of Draft (PNOD) on March 7, 2003, in the *Everett Herald* to inform the public that a draft permit and fact sheet were available for review. Interested persons were invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents were available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments were mailed to:

Water Quality Permit Coordinator  
Department of Ecology  
Northwest Regional Office  
3190 – 160th Avenue SE  
Bellevue, WA 98008-5452

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30) day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-216-100). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing.

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, 425 649 7201, or by writing to the address listed above.

## APPENDIX B—GLOSSARY

**Ammonia**—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

**Average Monthly Discharge Limitation**—The average of the measured values obtained over a calendar month's time.

**Best Management Practices (BMPs)**—Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural, and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**BOD<sub>5</sub>**—Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD<sub>5</sub> is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass**—The intentional diversion of waste streams from any portion of the collection or treatment facility.

**Categorical Pretreatment Standards**—National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

**Compliance Inspection - Without Sampling**—A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance Inspection - With Sampling**—A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

**Composite Sample**—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be “time-composite” (collected at constant time intervals) or “flow-proportional” (collected either as a constant sample volume at time intervals proportional to stream flow or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

**Construction Activity**—Clearing, grading, excavation, and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.



**Continuous Monitoring**—Uninterrupted, unless otherwise noted in the permit.

**Engineering Report**—A document, signed by a professional licensed engineer, which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Grab Sample**—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

**Industrial User**—A discharger of wastewater to the sanitary sewer which is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

**Industrial Wastewater**—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

**Interference**—A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) [including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA], sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**Local Limits**—Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

**Maximum Daily Discharge Limitation**—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

**Method Detection Level (MDL)**—The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

**Pass-through**—A discharge which exits the POTW into waters of the state in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of state water quality standards.

**pH**—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

**Potential Significant Industrial User**—A potential significant industrial user is defined as an industrial user which does not meet the criteria for a significant industrial user, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day; or
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass-through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).

The Department may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

**Quantitation Level (QL)**—A calculated value five times the MDL (method detection level).

**Significant Industrial User (SIU)**—

1. All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; and
2. Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, non-contact cooling, and boiler blowdown wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority\* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority\* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

\*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

**Slug Discharge**—Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate which may cause interference with the POTW.

**State Waters**—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater**—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

**Technology-based Effluent Limit**—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

**Total Coliform Bacteria**—A microbiological test which detects and enumerates the total coliform group of bacteria in water samples.

**Total Dissolved Solids**—That portion of total solids in water or wastewater that passes through a specific filter.

**Total Suspended Solids (TSS)**—Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

**Water Quality-based Effluent Limit**—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.